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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/674,782

09/30/2003

Charles C. Freeny JR.

2551.079

4439

30589

7590

02/02/2010

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EXAMINER

DANNEMAN, PAUL

ART UNIT

PAPER NUMBER

3627

MAIL DATE

DELIVERY MODE

02/02/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/674,782	Applicant(s) FREENY, CHARLES C.	
	Examiner PAUL DANNEMAN	Art Unit 3627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 17, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 17, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to Applicant's Amendment filed on 23 November 2009.
2. Dependent claims 7 and 18 have been cancelled.
3. **Claims 1, 17 and 19-20** have been amended.
4. **Claims 1-4, 17, 19 and 20** are pending and have been examined in this Office Application.

Response to Arguments

5. Applicant argues *"the present invention provides, among other inventive features, a store transaction system that can be installed in a store to automatically provide information regarding what revenue the store should be making if all of the customers being serviced are entered into the stores point of sale computer system properly."* Respectfully, the claims limitations of Claim 1-4 are based on customer activity which is much broader than "customers are being serviced" as per Applicant's argument. Claim 17 adds a "making a purchase" limitation to the "customer activity"

6. Applicant argues that *"Frey cannot sense customer activity at all but instead can only sense customer presence, i.e., whether or not there is a customer there, and if so, how many customers are present."* Respectfully the Examiner must disagree as the presence of a customer (type of customer adult, child, adult with children, etc.), direction of movement within a store, etc. represents some type of customer activity (Frey, Column 1, lines 25-46). Frey in at least Column 6, lines 6-12 further discloses that the invention may also receive data from a store POS system (sensing customer activity), and may receive data from other store computer systems as well.

7. Applicant argues *"The Office Action appears to relate Beach's use of actual sales information as a measure of the effectiveness of a particular business activity to generating an expected revenue signal as recited in the pending claims. Applicant respectfully disagrees and submits that such techniques are not the same as generating an expected revenue signal...based upon the customer activity of the at least one customer, as recited in the amended claims."*

Respectfully, the Examiner must disagree as Frey in at least Column 4, lines 5-21 discloses reconciling

Art Unit: 3627

the number of passengers with the fares paid to verify if the driver of a bus has charged the passengers the proper amount of fare. In this example the customer activity is based on boarding/riding a bus and the expected revenue is the fare multiplied by the number of customers (riders). Beach in at least Column 1, lines 12-21 collects point of sale data and transforms the collected data into a form from which object values representing select business activities are derived and compared to predefined reference values for the selected activities. Beach in at least Column 1, lines 34-60 discloses that the data collected from the POS includes the identification of the store and terminal where the sale occurred, the identification and price of items sold, the date and time of sales, the identification of the person making the sale, etc. Beach in at least Column 2, lines 43-59 used data collected from point of sale (POS) to evaluate the performance of a selected business activity. The expected revenue is the item sold times the price of the item sold.

8. Applicant argues with respect to the rejection of Claim 20 that ***“McConnell does not provide the deficiencies noted above with respect to the combination of Frey and Beach. Therefore, even if Frey, Beach and McConnell were combined, said combination does not teach or suggest each of the inventive features recited in independent claim 17, as amended and therefore claim 20 which depends therefrom.”*** Respectfully, the Examiner must disagree as per the responses above to the Applicant’s arguments the combination of Frey and Beach does not have any deficiencies, therefore the combination of Frey, Beach and McConnell properly anticipates Claim 20.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 3627

10. **Claim 1** rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. ***Amended Claim 1 has a limitation "outputting, automatically an alert signal when a discrepancy is found between the actual revenue signal and the expected revenue signal."*** However, paragraph [0024] in the Applicant's specification only provides support for an "automated tracking signal" and not for "automatically generally an alert..." Appropriate correction is required.

Claim Rejections - 35 USC § 103

11. **Claims 1-4, 17 and 19-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Frey et al., US 5,305,390 A hereinafter know as Frey and further in view of Beach et al., US 5,924,077 hereinafter known as Beach and further in view of McConnell et al., US 7,240,027 B2 hereinafter known as McConnell.

Claims 1, 17 and 19:

With regard to the limitations:

- ***Providing at least one sensor associated with a physical store, the sensor sensing information indicative of the customer activity and automatically outputting activity signals indicative of such customer activity sensed by the sensor;***

Frey in at least Column 2, lines 35-59 discloses an invention for use in retail stores for generating information on the number of persons in the store at selected time intervals, the categories of those persons, if they have a shopping cart (Column 1, lines 35-38 and Fig.8) and the way in which those categories relate to actual store performance. Frey in at least Column 3, lines 12-44 discloses detecting customers that may enter and leave the store. Frey in at least Column 4, lines 1-4 and Column 6, lines 6-12 further discloses that the invention may also receive data from a store POS system, and may receive data from other store computer systems as well.

Art Unit: 3627

- ***Receiving the customer activity signals automatically via a transaction computer and automatically generating an expected revenue signal indicative of expected revenue to be received by the physical store based upon the customer activity of the at least one customer;***

Frey in at least Column 2, lines 52-59 further discloses that the primary objective of any retail establishment is to maximize sales including the conversion of shoppers to actual customers.

Frey in at least Column 2, lines 60-67 further discloses that not all persons who enter the store are potential customers such as young children who are unlikely to make any purchases themselves. Frey in at least Column 3, lines 1-11 further discloses generating height profiles of persons or objects and converting the information to the number of shoppers based on height criteria and the number of non-shoppers.

Frey in at least Column 3, lines 12-44 further discloses the system automatically performing its functions and communicating the information, regarding shoppers in and out flow, to a central processing unit (CPU). Frey further discloses that the information is integrated with data from the store's point of sale (POS) system and other store computer management systems which provide number of sales (customers), dollar sales, times of sales, locations of sales, sales categories, labor hours and so on. The combined information may be used to generate management reports to assist management in evaluating store performance. The information may also be used to optimize staffing for greater service, increase conversion rates, and improve dollar volume per transaction.

Frey does not specifically disclose generating an expected revenue signal based on customer activity, however Frey in at least Column 3, lines 45-67 further discloses evaluating advertising and special event effectiveness and conducting controlled tests to accurately measure the increased traffic created by individual advertisements, multi-media campaigns, sales events, or specific promotions and Frey can also be used to measure the impact from a competitors' advertising on a store's performance. Frey in at least Column 6, lines 6-12 further discloses that

Art Unit: 3627

the invention may also receive data from a store POS system, and may receive data from other store computer systems as well.

However, Beach in at least Column 2, lines 43-59 discloses an invention which is computer based and effectively monitors and processes data collected from point of sale (POS) of goods or services to facilitate the evaluation and management of the related business activities. Beach in at least Column 3, lines 2-20 further discloses the transformation of raw data collected by the electronic point of sale terminals and the derivation of one or more object values representative of a selected business activity (net sales, gross sales, etc.), comparing the object values with a corresponding set of saved reference values to determine and identify a pass condition representative of an acceptable comparison of object values and corresponding value, and a fail condition representative of an unacceptable comparison of object values and corresponding reference value, or a warning condition representative of a questionable comparison of object values and corresponding reference values.

- ***Generating an actual revenue signal indicative of actual revenue received from the at least one customer by the physical store and comparing the actual to the expected revenue signal; and***
- ***Outputting, automatically an alert signal when a discrepancy is found between the actual revenue signal and the expected revenue signal.***

Beach in at least Column 2, lines 55-59 further discloses an object of the invention is to alert the user to anomalous performance in select business activities and to allow the user to readily determine the cause of the anomalous performance. Beach in at least Column 2, lines 60-67 further discloses the comparison of objective values representing selected business activities (net sales, gross sales, etc.) and compared to predefined reference values for the selected activities. Beach in at least Column 9, lines 10-14 discloses some of the selected business activities as monitoring and processing hourly production, labor, and sales by department/group, price look up (PLU) group, customer service time and promotional sales activities. Beach in at least Fig.12, Fig.14 and Fig.18 discloses a handful of business activities and alerts that may be generated, etc.

Art Unit: 3627

Beach in at least Column 6, lines 1-11 discloses the use of a display subsystem to visually and/or audibly alerting the user of an identified condition (pass, fail, and/or warning).

Therefore, it would have been obvious at the time of the invention, to one of ordinary skill, to combine the well known elements of Frey for determining the number of shoppers in a store with the well known elements of Beach for collecting and transforming POS data into object and reference values which are compared based on corresponding business activities to yield a pass, fail or warning condition.

Claims 2 and 4:

Regarding the further limitations:

- *Comprising a store control unit receiving the expected revenue signal and a baseline comparison signal, the store unit comparing the expected revenue signal with the baseline comparison signal.*
- *Wherein the store control unit outputs an alert signal upon determination of a difference exceeding a pre-determined level between the expected revenue signal and baseline comparison signal.*

Frey does not specifically disclose generating an expected revenue signal based on customer activity per se, however Frey in at least Column 3, lines 45-67 further discloses evaluating advertising and special event effectiveness and conducting controlled tests to accurately measure the increased traffic created by individual advertisements, multi-media campaigns, sales events, or specific promotions and Frey can also be used to measure the impact from a competitors' advertising on a store's performance. Frey in at least Column 6, lines 6-12 further discloses that the invention may also receive data from a store POS system, and may receive data from other store computer systems as well. Frey in at least Column 4, lines 5-21 discloses reconciling the number of passengers with the fares paid to verify if the driver of a bus has charged the passengers the proper amount of fare. In this example the customer activity is based on

Art Unit: 3627

boarding/riding a bus and the expected revenue is the fare multiplied by the number of customers (riders).

Beach in at least Column 2, lines 55-59 further discloses an object of the invention is to alert the user to anomalous performance in select business activities and to allow the user to readily determine the cause of the anomalous performance. Beach in at least Column 2, lines 60-67 further discloses the comparison of objective values representing selected business activities (net sales, gross sales, etc.) and compared to predefined reference values for the selected activities. Beach in at least Column 9, lines 10-14 discloses some of the selected business activities as monitoring and processing hourly production, labor, and sales by department/group, price look up (PLU) group, customer service time and promotional sales activities. Beach in at least Fig.12, Fig.14 and Fig.18 discloses a handful of business activities and alerts that may be generated related to revenue, etc.

Therefore, it would have been obvious at the time of the invention, to one of ordinary skill, to combine the well known elements of Frey for determining the number of shoppers in a store with the well known elements of Beach for collecting and transforming POS data into object and reference values which are compared based on corresponding business activities to yield a pass, fail or warning condition.

Claims 3 and 20:

With regard to the limitation:

- ***Wherein the store control unit is established as a website communicating over the Internet.***

The combination of Frey and Beach do not specifically disclose the limitation above per se, however Frey in at least Column 3, lines 20-35 discloses transmitting the physical store customer activity information between a central processing unit (CPU) and a store controller or in-store processor (ISP) and integrated with POS system data and other store computer management systems. Frey further discloses in at least Column 4, lines 5-67 the use of the activity monitor in

Art Unit: 3627

buses, airports, banks, museums libraries, government facilities, etc. Beach does not specifically disclose a website, however, in at least Fig.14 and Fig.15 discloses various business locations from which POS data is being collected. Beach in at least Column 6, lines 12-19 further discloses a polling subsystem 14 which collects raw data from POS terminals at various locations.

Therefore, it would have been obvious, at the time of the invention, to one of ordinary skill to combine Frey and Beach with the well known elements of McConnell's use of the Internet (Fig.1, Column 8, lines 22-32 and Column 11, lines 56-64) for communicating POS data between store locations and a store manager along with alarms or alerts (Column 12, lines 29-41), with the motivation of supporting a multi-store business.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL DANNEMAN whose telephone number is (571)270-1863. The examiner can normally be reached on Mon.-Thurs. 6AM-5PM Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Florian Zeender can be reached on 571-272-6790. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Paul Danneman/

Examiner, Art Unit 3627

20 January 2010

/F. Ryan Zeender/

Supervisory Patent Examiner, Art Unit 3627